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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/790,050

03/02/2004

Richard Lang

LANG3003/JEK

9821

23364

7590

11/22/2005

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ALEXANDRIA, VA 22314

EXAMINER

SEVER, ANDREW T

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

**Office Action Summary**

Application No.

10/790,050

Applicant(s)

LANG, RICHARD

Examiner

Andrew T. Sever

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Specification***

2. The abstract of the disclosure is objected to because the abstract comprises of two paragraphs. Correction is required. See MPEP § 608.01(b).

The "Figure 1" is not permissible in US abstracts.

3. The use of the trademark DMD has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

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Applicant should review to insure no other trademarks are present in addition to correcting the use of DMD.

***Claim Objections***

4. Claims 1-13 are objected to because of the following informalities: The claims are generally narrative and indefinite, failing to conform with current U.S. practice. Appropriate correction is required.

For example claim 11 claims in part that the polarizer “preferably” consists of wire-grid polarizers does this mean that the polarizer must be a wire-grid polarizer to meet the claim, or is the claim limitation met by any polarizer. Applicant also claims what the projector does not have rather than what it does have in claim 7 for example. Similar language is found in most if not all claims and appropriate correction is required to place the claims in a form conforming with current U.S. practice.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-10, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Itoh et al. (US 6,147,802.)

Itoh teaches in figure 2 a projection device, wherein light emitted from at least one light source (101), is split in different colors (R,G, B), in particular primary colors, and subsequently is transmitted to respective light valves (109R, 109G, and 109B), said projection device comprising several optical components, wherein said optical components are arranged in such configuration that at least one splitting takes place at a location in which the light of said at least one light source is still in a quasi-parallel or parallel state (one splitting takes place at 203).

*With regards to applicant's claim 2:*

Part 105 and 106 comprises an integrator.

*With regards to applicant's claim 3:*

They are disposed after at least the first light splitting element 203.

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*With regards to applicant's claim 4:*

See figure 1A, which shows the integrator 102, which comprises of 106 and 105, which are first and second fly-eye lenses.

*With regards to applicant's claim 5:*

Part 104 is specified to be a pre-polarizer.

*With regards to applicant's claim 6:*

Parts 213 is a condenser lens (Also see figure 1A which shows a condenser lens 107)

*With regards to applicant's claim 7:*

See figure 2.

*With regards to applicant's claim 8:*

Although figure 1A suggests a polarizer 103 that possibly could be prior to the splitter, figure 2 clearly shows the polarizer (103) after the splitter 203.

*With regards to applicant's claim 9:*

No lenses are present prior to 203.

*With regards to applicant's claim 10:*

At least one pre-polarizer 103 is downstream of all light splitting elements (on the red path).

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*With regards to applicant's claims 12 and 13:*

See above where the projection device of Itoh performs at least one of the claimed steps. Also

See MPEP 2112.02.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al. (US 6,147,802) in view of Mi et al. (US 6,909,473.)

Itoh teaches in figure 2 a projection device, wherein light emitted from at least one light source, is split in different colors, in particular primary colors, and subsequently is transmitted to respective light valves, wherein these light valves create colored images which by means of polarizing beam splitters, are directed to a color composition element, such as an x-cube. Itoh does not specifically teach that at least of the polarizing beam splitters consist of wire-grid polarizers. Mi et al. teaches in column 3 line 46 through column 4 line 65 that wire-grid polarizers have advantages over other prior art polarizers such as high extinction ratios and high efficiency (See column 4 lines 7-19). Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was

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made to use the wire-grid polarizer of Mi in the projection device of Itoh as they have better performance.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 6,594,090 to Kruschwitz et al. which teaches in figure 1 a projector having a fly-eye lens integrator 40 among other things.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "W B Perkey".

AS

**William Perkey**  
**Primary Examiner**